WHAT IS CLAIMED IS:

1. A device adapted for bioconjugation comprising:

(a) a substrate;

(b) one or a plurality of microlocation(s) present on said substrate;

(c) a buffer present on or surrounding said microlocation(s);

(d) two or more electrodes adapted to receive charge, said two or more electrodes being separated from one another, from said microlocation(s), and from said buffer, but appropriately positioned so as to create an electric field in said microlocation(s) without creating current flow in said microlocation(s) when said two or more electrodes receive charge; and

(e) a source for providing charge to said electrodes.

2. The device of claim 1, wherein said microlocation(s) comprise a porous media.

3. The device of claim 1, wherein the distance between said two or more electrodes and said buffer is each from about 1.5 nanometers to about 5 centimeters.

4. The device of claim 1, wherein from two to ten electrodes are present.

5. The device of claim 1, wherein more than two electrodes are present, and said electrodes are in a configuration that approximates that of a cylinder or sphere.

6. The device of claim 1, wherein:

(a) two electrodes are present, and said electrodes are on opposite sides of said substrate in a stacked arrangement;

(b) three electrodes are present, and said electrodes form a triangle in one plane, having a center in said plane, with said substrate located in said center;

(c) four electrodes are present, and said electrodes form a square in one plane, having a center in said plane, with said substrate located in said center;

(d) five electrodes are present, and said electrodes form a pentagon in one

plane, having a center in said plane, with said substrate located in said center;

(e) five electrodes are present, and said electrodes form a three dimensional triangle, having a center in said triangle, with said substrate located in said center;

(f) six electrodes are present, and said electrodes form a hexagon in one plane, having a center in said plane, with said substrate located in said center; or

(g) six electrodes are present, and said electrodes form a three dimensional square, having a center in said square, with said substrate located in said center.

7. A device adapted for bioconjugation of binding entities, the device comprising:

(a) a substrate;

(b) one or a plurality of microlocation(s) present on said substrate, said microlocation(s) each comprising a binding entity;

(c) a source for applying sample comprising one or more further binding entities to said microlocation(s);

(d) a buffer present on or surrounding said microlocation(s);

(e) a first electrode adapted to receive charge;

(f) one or more other electrode(s) adapted to receive charge; and

(g) a source for providing charge to said first or said one or more other electrode(s);

said first and said one or more other electrode(s) being separated from one another, from said microlocation(s), and from said buffer, but appropriately positioned so as to create an electric field in said microlocation(s) without creating current flow in said microlocations when said two or more electrodes receive charge.

8. The device of claim 7, wherein said microlocation(s) comprise a porous media.

9. The device of claim 7, wherein the distance between said first electrode and said substrate, and between said one or more other electrode(s) and said substrate, is each from about 1.5 nanometers to about 5 centimeters.

10. The device of claim 7 comprising a plurality of microlocations, wherein said microlocations each comprise a first binding entity having known binding characteristics, and wherein the first binding entity present in one microlocation differs from the first binding entity present in other microlocations in a known and predetermined manner.

11. The device of claim 7, wherein said first binding entity is a probe, and said sample is nucleic acid.

12. The device of claim 7, wherein from two to ten electrodes are present.

13. The device of claim 7, wherein more than two electrodes are present, and said electrodes are in a configuration that approximates that of a cylinder or sphere.

14. The device of claim 7, wherein:

(a) two electrodes are present, and said electrodes are on opposite sides of said substrate in a stacked arrangement;

(b) three electrodes are present, and said electrodes form a triangle in one plane, having a center in said plane, with said substrate located in said center;

(c) four electrodes are present, and said electrodes form a square in one plane, having a center in said plane, with said substrate located in said center;

(d) five electrodes are present, and said electrodes form a pentagon in one plane, having a center in said plane, with said substrate located in said center;

(e) five electrodes are present, and said electrodes form a three dimensional triangle, having a center in said triangle, with said substrate located in said center;

(f) six electrodes are present, and said electrodes form a hexagon in one plane, having a center in said plane, with said substrate located in said center; or

(g) six electrodes are present, and said electrodes form a three dimensional square, having a center in said square, with said substrate located in said center.

15. A method for bioconjugating binding entities in a device having one or a plurality of microlocation(s) present on a substrate, wherein said microlocation(s)

comprise a first binding entity, said method comprising the steps of:

(a) applying sample comprising one or more further binding entities to said microlocation(s); and

(b) applying charge to said device to produce an electric field at said microlocation(s) without creating current flow in said microlocation(s), and such that said one or more further binding entities are transported to said first binding entities present in said microlocation(s) under conditions sufficient for bioconjugation to occur.

16. The method of claim 15, wherein said microlocation(s) comprise a porous media.

17. The method of claim 15, which comprises the further step (c) of applying charge to said device to produce an electric field at said microlocation(s) without creating current flow in said microlocation(s), and such that said one or more further binding entities that are not bioconjugated with said first binding entities are transported away from said first binding entities in said microlocation(s).

18. The method of claim 17, wherein steps (b) and (c) are repeated at least once.

19. The method of claim 15, said device comprising a plurality of microlocations, wherein said microlocations each comprise a first binding entity having known binding characteristics, and wherein the first binding entity present in one microlocation differs from the first binding entity present in other microlocations in a known and predetermined manner.

20. The method of claim 15, wherein said first binding entity is a probe, and said sample is nucleic acid.

21. The method of claim 15, wherein charge is applied to said device in such a way as to produce a stirring or mixing motion, or cause a rotational motion at said

microlocation(s).

22. A method for bioconjugating binding entities in a device having one or a plurality of microlocation(s) present on a substrate, wherein said microlocation(s) comprise a first binding entity, said method comprising the steps of:

(a) applying sample comprising one or more further binding entities to said microlocation(s);

(b) applying charge to said device to produce an electric field at said microlocation(s) without creating current flow in said microlocation(s), and such that said one or more further binding entities are transported to said first binding entities in said microlocation(s) under conditions sufficient for bioconjugation to occur; and

(c) applying charge to said device to produce an electric field at said microlocation(s) without creating current flow in said microlocation(s), and such that said one or more further binding entities that are not bioconjugated with said first binding entities are transported away from said first binding entities in said microlocation(s).

23. The method of claim 22, wherein steps (b) and (c) are repeated at least once.

24. The method of claim 22, said device comprising a plurality of microlocations, wherein said microlocations each comprise a first binding entity having known binding characteristics, and wherein the first binding entity present in one microlocation differs from the first binding entity present in other microlocations in a known and predetermined manner.

25. The method of claim 22, wherein said first binding entity is a probe, and said sample is nucleic acid.

26. The method of claim 22, wherein said microlocation(s) comprise a porous media.

27. The method of claim 22, wherein charge is applied to said device in such a

way as to produce a stirring or mixing motion, or cause a rotational motion at said microlocation(s).